



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1850
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,996	11/09/2001	Peter Trefonas III	50964	3653
21874	7590	01/10/2006	EXAMINER	
EDWARDS & ANGELL, LLP			GUILL, RUSSELL L	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	
			2123	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/035,996	TREFONAS, PETER	
	Examiner	Art Unit	
	Russell L. Guill	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to an Amendment filed October 19, 2005. Claims 1 – 10 were cancelled. Claims 11 – 20 were added. Claims 11 – 20 have been examined. Claims 11 – 20 have been rejected.

Response to Remarks

2. As an initial matter, the Examiner would like to thank the Applicant for a well-presented response. Such a response is useful in the examination process.
3. Regarding claims 1, 4, 6 and 9 rejected under 35 USC § 112, second paragraph:
 - a. Applicant has cancelled the claims.
4. Regarding claims 1 - 5 and 6 - 10 rejected under 35 USC § 101:
 - a. Applicant has cancelled the claims.
5. Regarding claims 1, 2, 4, 6 and 7 rejected under 35 USC § 102:
 - a. Applicant has cancelled the claims.
6. Regarding claims 3, 5, 8 and 10 rejected under 35 USC § 103:
 - a. Applicant has cancelled the claims.

Drawings

7. The drawings are objected to because they are informal. Please refer to the form PTO-948 Notice of Draftperson's Patent Drawing Review that is included with this Office Action. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 17 and 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim appears to allow the system to be entirely an arrangement of software, which is non-statutory.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent

11. Claims 17, 18 and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by XeroxReferenceGuide ("Xerox Document Centre Reference Guide", February 2000, Xerox Corporation).

a. Regarding claim 17:

b. XeroxReferenceGuide appears to teach:

i. A simulation engine that comprises hardware and/or software that takes a desired result as an input and outputs at least one parameter setting for operating equipment to achieve a desired result (page 4-9, paragraphs 2, 3, and 4. Paragraph 2 starts with "When Auto Paper . . ."; it is inherent in the device that a simulation engine receives the desired result of "auto paper" and outputs image size settings as output parameter settings in order to operate the equipment to achieve the desired result).

ii. A consumable knowledge base that comprises hardware and/or software that takes as input at least one parameter setting for operating equipment to achieve a desired result, and outputs a consumable selection for use in the equipment to achieve a desired

result (page 4-9, paragraphs 2, 3, and 4. Paragraph 2 starts with "When Auto Paper . . ."; it is inherent in the device that a consumable knowledge base receives the image size settings and outputs a selected paper size for use in the equipment to achieve the desired result).

c. Regarding claim 18:

d. XeroxReferenceGuide appears to teach:

i. A configuration file for storing the desired result, a reference to the equipment, the at least one parameter setting and the consumable selection (page 4-35, section labeled "Stored Programming"; it is inherent in the device that the results are stored to a configuration file).

e. Regarding claim 20:

f. XeroxReferenceGuide appears to teach:

i. The system is in communication with the equipment and the system communicates the at least one parameter setting to the equipment for setting the equipment according to the at least one parameter (page 3-2, element label that starts with "Touch the Screen . . ."; it is inherent in the construction of the equipment that the system communicates the at least one parameter setting to the equipment for setting the equipment according to the at least one parameter).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 11, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over XeroxReferenceGuide ("Xerox Document Centre Reference Guide", February 2000, Xerox Corporation) in view of Smith (U.S. Patent 6,601,159).

- a. Regarding claim 11:
- b. XeroxReferenceGuide appears to teach:
 - i. A simulation engine that comprises hardware and/or software that takes a desired result as an input and outputs at least one parameter setting for operating equipment to achieve a desired result (page 4-9, paragraphs 2, 3, and 4. Paragraph 2 starts with "When Auto Paper . . ."; it would have been obvious that a simulation engine receives the desired result of "auto paper" and outputs image size settings as output parameter settings in order to operate the equipment to achieve the desired result).
 - ii. A consumable knowledge base that comprises hardware and/or software that takes as input at least one parameter setting for operating equipment to achieve a desired result, and outputs a consumable selection for use in the equipment to achieve a desired result (page 4-9, paragraphs 2, 3, and 4. Paragraph 2 starts with "When Auto Paper . . ."; it would have been obvious that a consumable knowledge base receives the image size settings and outputs a selected paper size for use in the equipment to achieve the desired result).
 - iii. A configuration file for storing the desired result, a reference to the equipment, the at least one parameter setting and the consumable selection (page 4-35, section labeled "Stored Programming"; it would have been obvious that the results are stored to a configuration file).
 - iv. The system is in communication with the equipment and the system communicates the at least one parameter setting to the equipment for setting the equipment according to the at least one parameter (page 3-2, element label that starts with "Touch the Screen . . ."; it would have been obvious from the construction of the equipment that the system communicates the at least one parameter setting to the equipment for setting the equipment according to the at least one parameter).
- c. XeroxReferenceGuide does not specifically teach:
 - i. A process step configurator, the process step configurator receiving the desired result, the at least one parameter setting and the consumable selection and outputting a step-by-step process for achieving a desired result.
- d. Smith appears to teach:
 - i. A process step configurator (column 8, lines 45 - 55), the process step configurator receiving the desired result (column 6, lines 45 - 47; and column 9, lines 56

- 60), the at least one parameter setting (column 6, lines 45 - 47; and column 9, lines 56 - 60) and the consumable selection (column 6, lines 45 - 47; and column 9, lines 56 - 60) and outputting a step-by-step process for achieving a desired result (column 8, lines 45 - 55).
- e. The art of Smith and the art of XeroxReferenceGuide are analogous art because they are both directed to the art of photocopier functions.
 - f. The motivation to use the art of Smith with the art of XeroxReferenceGuide would have been the benefits recited in Smith that the invention reduces cost (column 3, lines 51 - 56).
 - g. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Smith with the art of XeroxReferenceGuide to produce the claimed invention.
 - h. Regarding claim 12:
 - i. XeroxReferenceGuide appears to teach:
 - i. the simulation engine outputs a simulation result (page 4-9, paragraphs 2, 3, and 4. Paragraph 2 starts with "When Auto Paper . . ."; it would have been obvious that a simulation engine receives the desired result of "auto paper" and outputs image size settings as a simulation result).
 - j. Regarding claim 14:
 - k. XeroxReferenceGuide appears to teach:
 - i. Receiving a desired result into a simulation engine (page 4-9, paragraphs 2, 3, and 4. Paragraph 2 starts with "When Auto Paper . . ."; it would have been obvious that a simulation engine receives the desired result of "auto paper").
 - ii. Outputting from said simulation engine at least one parameter setting for operating said equipment to achieve said desired result (page 4-9, paragraphs 2, 3, and 4. Paragraph 2 starts with "When Auto Paper . . ."; it would have been obvious that a simulation engine receives the desired result of "auto paper" and outputs image size settings as output parameter settings in order to operate the equipment to achieve the desired result).
 - iii. Outputting a consumable selection for use in said equipment to achieve said desired result (page 4-9, paragraphs 2, 3, and 4. Paragraph 2 starts with "When Auto Paper . . ."; it would have been obvious that a consumable knowledge base receives the

image size settings and outputs a selected paper size for use in the equipment to achieve the desired result).

iv. Storing the desired result, a reference to the equipment, the at least one parameter setting and the consumable selection to a configuration file (page 4-35, section labeled "Stored Programming"; it would have been obvious that the results are stored to a configuration file).

l. XeroxReferenceGuide does not specifically teach:

i. Outputting a step-by-step process for achieving the desired result based on the desired result, the at least one parameter setting and the consumable selection.

m. Smith appears to teach:

i. Outputting a step-by-step process for achieving the desired result result (column 8, lines 45 - 55) based on the desired result (column 6, lines 45 - 47; and column 9, lines 56 - 60), the at least one parameter setting (column 6, lines 45 - 47; and column 9, lines 56 - 60) and the consumable selection (column 6, lines 45 - 47; and column 9, lines 56 - 60).

n. The art of Smith and the art of XeroxReferenceGuide are analogous art because they are both directed to the art of photocopier functions.

o. The motivation to use the art of Smith with the art of XeroxReferenceGuide would have been the benefits recited in Smith that the invention reduces cost (column 3, lines 51 - 56).

p. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Smith with the art of XeroxReferenceGuide to produce the claimed invention.

q. Regarding claim 15:

r. XeroxReferenceGuide appears to teach:

i. Outputting from the simulation engine a simulation result (page 4-9, paragraphs 2, 3, and 4. Paragraph 2 starts with "When Auto Paper . . ."; it would have been obvious that a simulation engine receives the desired result of "auto paper" and outputs image size settings as a simulation result).

14. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over XeroxReferenceGuide in view of Smith as applied to claims 11, 12, 14 and 15 above, further in view of Park (U.S. Patent Number 6,445,443).

- a. XeroxReferenceGuide as modified by Smith teaches the system for configuring equipment to achieve a desired result as recited in claims 11, 12, 14 and 15 above.
- b. Regarding claim 13:
- c. XeroxReferenceGuide does not specifically teach:
 - i. the equipment is a wafer stepper used to produce a circuit pattern on a wafer element.
- d. Park appears to teach:
 - i. the equipment is a wafer stepper used to produce a circuit pattern on a wafer element (figure 1, element 140; column 1, lines 32 - 37; and column 2, lines 51 - 58; and column 3, lines 45 - 67, and column 4, lines 1 - 34).
- e. The art of Park and the art of XeroxReferenceGuide are analogous art because they both contain the art of equipment controlled by a controller (XeroxReferenceGuide, page 4-35, Stored Programming; it would have been obvious that the equipment contains a controller) and (Park, figure 1, element 140; column 1, lines 32 - 37; and column 2, lines 51 - 58).
- f. The motivation to use the art of Park with the art of XeroxReferenceGuide would have been the knowledge of the ordinary artisan that an automatic method of applying optimal parameters would have resulted in reduced errors and failures (Park, column 1, lines 5 - 13, and lines 26 - 50).
- g. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Smith with the art of XeroxReferenceGuide to produce the claimed invention.
- h. Regarding claim 16:
- i. XeroxReferenceGuide does not specifically teach:
 - i. the equipment is a wafer stepper used to produce a circuit pattern on a wafer element.
- j. Park appears to teach:
 - i. the equipment is a wafer stepper used to produce a circuit pattern on a wafer element (figure 1, element 140; column 1, lines 32 - 37; and column 2, lines 51 - 58; and column 3, lines 45 - 67, and column 4, lines 1 - 34).

Art Unit: 2123

- k. The art of Park and the art of XeroxReferenceGuide are analogous art because they both contain the art of equipment controlled by a controller (XeroxReferenceGuide, page 4-35, Stored Programming; it would have been obvious that the equipment contains a controller) and (Park, figure 1, element 140; column 1, lines 32 - 37; and column 2, lines 51 - 58).
- l. The motivation to use the art of Park with the art of XeroxReferenceGuide would have been the knowledge of the ordinary artisan that an automatic method of applying optimal parameters would have resulted in reduced errors and failures (Park, column 1, lines 5 - 13, and lines 26 - 50).
- m. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Smith with the art of XeroxReferenceGuide to produce the claimed invention.

15. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over XeroxReferenceGuide as applied to claims 17, 18 and 20 above in view of Smith (U.S. Patent 6,601,159).

- a. Regarding claim 19:
- b. XeroxReferenceGuide does not specifically teach:
 - i. A process step configurator, the process step configurator receiving the desired result, the at least one parameter setting and the consumable selection and outputting a step-by-step process for achieving a desired result.
- c. Smith appears to teach:
 - i. A process step configurator (column 8, lines 45 - 55), the process step configurator receiving the desired result (column 6, lines 45 - 47; and column 9, lines 56 - 60), the at least one parameter setting (column 6, lines 45 - 47; and column 9, lines 56 - 60) and the consumable selection (column 6, lines 45 - 47; and column 9, lines 56 - 60) and outputting a step-by-step process for achieving a desired result (column 8, lines 45 - 55).

16. Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of

the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell L. Guill whose telephone number is 571-272-7955. The examiner can normally be reached on Monday - Friday 10:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RG

Russ Guill
Examiner
Art Unit


Primary Examiner
Art Unit 2125